

Remarks

The applicant has carefully considered the Office action mailed on September 9, 2004, and the references it cites. In the Office action, claims 1-15 were rejected as unpatentable over Bar-Gadda (U.S. Pat. No. 6,579,805). By way of the foregoing amendments, the applicant has amended claims 1 and 9 and has added claims 16 and 17 for consideration, leaving claims 1-17 pending and at issue in the application. In view of the foregoing amendments and the following remarks, reconsideration of the application is respectfully requested.

Independent claim 1 now recites a method for igniting plasma in a semiconductor process wherein CHF_3 , Ar, and Cl_2 gases are introduced to a chamber, the supply of Cl_2 gas is stopped, and then a plasma is ignited. Bar-Gadda teaches a method and apparatus for processing semiconductor wafers wherein gasses are introduced to a chamber and plasma is ignited. Bar-Gadda does not teach or suggest that a flow of Cl_2 gas could or should be stopped before a plasma is ignited. In fact, Bar-Gadda fails to recognize that the advantages of stopping or completing the Cl_2 gas supply as recited in claim 1 include achieving a greater selectivity via the plasma ignition process and the ability to maintain the pressure of the chamber during the plasma ignition process. Thus, it is respectfully submitted that independent claim 1 and all claims dependent thereon are in condition for allowance for at least the reasons stated above.

The applicant submits that independent claim 9 and all claims dependent thereon are also allowable for reasons similar to those set forth in connection with independent claim 1 above.

Turning now to the newly added claims, independent claims 16 and 17 recite a method and apparatus for igniting plasma in a semiconductor process wherein CHF_3 , Ar, and Cl_2 gasses are introduced to a chamber, the supply of Cl_2 gas is stopped, and a residual Cl_2 gas is used for ignition and then pumped from the chamber. It is respectfully submitted that Bar-Gadda does not teach or suggest a method or apparatus for using a residual Cl_2 gas for ignition of a plasma and then pumping the Cl_2 gas from a chamber. Thus, it is respectfully submitted that new claims 16 and 17 are in condition for allowance.

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Response to the Office action of September 9, 2004

Reconsideration of the application and allowance thereof are respectfully requested.
If there is any matter that the examiner would like to discuss, the examiner is invited to
contact the undersigned representative at the telephone number set forth below.

Respectfully submitted,

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